





The Fundamentals of Asset Management A "Hands-On" Approach



November 8-9, 2011

Training Center:

Doubletree Hotel 42100 Crescent Blvd Novi, MI 48375

Sponsored by:

U.S. Environmental Protection Agency

Michigan Rural Water Association

Michigan Department of Environmental Quality

Registration Deadline: November 1, 2011 (Register Early - Space is Limited)

<u>The Challenge:</u> Over the past half century, America has spent trillions of dollars building some of the finest infrastructure that history has ever seen. This investment has played a substantial role in the sustained prosperity and quality of life of our country. But in many communities, this infrastructure is severely stressed from overuse, under funding of maintenance and renewal, and aging.

A comprehensive approach to managing our capital assets is overdue — one that brings "state of the practice" advanced asset management (AM) concepts, tools, techniques, and technologies to bear on managing for cost-effective performance. This approach focuses relentlessly on providing sustained performance to the customer at the lowest life-cycle cost and at an acceptable level of risk to the organization.

<u>The Focus:</u> Public sector managers have been managing assets for decades. However, it is clear that what we have been doing in the past will not be sufficient to address the growing and increasingly complex challenges that lie ahead. Practical, advanced techniques for better management of assets have been developed and refined in both the private sector in the US and in water and wastewater agencies around the world. Management thinking is centered on long-term effectiveness, service sustainability, and effective environmental management. How can these advanced asset management concepts, tools and techniques be most effectively transferred into the water and wastewater industry, more specifically, into your agency? Where to start? How to proceed? How to select appropriate tools?

<u>The Workshop:</u> The AM challenge for US agency officials is one of "knowledge transfer." For that reason, these workshops have been designed as an extensive hands-on experience. Each workshop:

- ♦ Incorporates a real-world storyline to realistically demonstrate an advanced asset management way of approaching difficult asset-driven problems.
- Is built around participant exercises that demonstrate the concepts, techniques and tools of advanced asset management.
- ♦ Is centered on case-based mentoring by expert asset management practitioners.

The agenda is built around five core AM questions. The workshops focus on demonstrating, step-by-step, how an agency would select and deploy "Best Appropriate AM Practices" that are best suited to that agency.

This Training has been approved for 1.4 Continuing Education Credits in Water and Wastewater Managerial







The Fundamentals of Asset Management - A "Hands-On" Approach Agenda Highlights

8:00 am - 8:30 am Coffee and Pastries, Name Badge Pickup 8:30 am - 5:00 pm Duration of the Workshop

Introductions 8:30 - 8:45

Background and Context 8:45 - 9:30

- The Changing Utility Industry
- The Emerging Utility Of Tomorrow

Introduction of Storyline, Overview of Fundamental Concepts and Core Practices 9:30 - 10:00

- Introduction Of Storyline
- A Definition Of AM
- A "Meta View" of the AM Paradigm
- Managing The Asset Base's "Potential To Fail"
- Payoffs And Benefits, Downsides
- The "Five Core Questions" and the "10-Step AM Process"

Break: 10:00 - 10:15

Storyline and Worksheets - Tom's Bad Day

Core Question 1:

What Is The Current State Of My Assets? 10:15-12:15

- What is an Asset?
- Building a "Process Layout" Schematic
- Creating The "Asset Hierarchy"
- Defining The "Data Standard"
- Initial Condition Analysis, Remaining Physical Life

Lunch: 12:15-1:00

What Is The Current State Of My Assets? Continued

- The Four Major Failure Modes 1:00 2:00
- Determining Replacement Value 2:00-2:30

Break: 2:30 - 2:45

Financial versus Managerial Accounting 2:45-3:30

Core Question 2: What Is My Required "Sustainable" Level Of Service (LOS)? 3:30 - 4:00

- What Is "LOS"? Why Do It?
- How It Works (Strategic Level Versus Operations Level)

Review Day One

Discussion, Q & A and Feedback 4:00 - 5:00

Day Two

8:00 am - 8:30 am Coffee and Donuts

8:30 am - 4:45 pm Duration of Workshop

Core Question 3: Which Assets Are Critical To Sustained Performance? 8:00 - 10:00

- Understanding How My Assets Can Fail the Four Major Failure Modes
- Determining The "Likelihood Of Failure"
- Determining The "Consequences of Failure"
- How to Measure Our Agency's "Business Risk Exposure"?

Break: 10:00 - 10:15

Core Ouestion 4: What Are My Best Minimum Life-Cycle-Cost CIP And O&M Strategies? 10:15 - 11:00

- What Alternative "Treatment" (Management) Options Are Feasible?
- Which Is The Best Option? The Basics of "Optimized Renewal Decision Making"

Core Question 4: O&M (Continued) 11:00 - 12:00

- Using AM To Drive Operations And Maintenance
- Moving Systematically Into Reliability Centered And Condition-Based Maintenance

Lunch: 12:15-1:00

Core Question 4: CIP (Continued) 1:00 - 2:00

- Using AAM To Drive CIP
- Strategic CIP Validation

Core Question 4: CIP (Continued) 2:00 - 2:45

- Using AAM To Drive CIP
- Strategic CIP Validation

Break: 2:45 - 3:00

Core Question 5: What is My Best Long Term Funding Strategy? 3:00 - 4:00

- So, Valuation Really Does matter?
- Determining A Sustainable Renewal Funding Level
- Effectively Telling the Funding Story
- The "Whole of Business" Perspective Using AAM For Rate Setting & Budgeting
- Building Your First Asset Management Plan

Topic 1: Deploying an AAM Program 4:00 - 4:30

- The Human Side
- The Political Side
- Implementation Work Plans Lessons Learned

Closing Summary, Questions, Comments

About Our Trainers:

Mr. Steve Allbee - USEPA Project Director, Gap Analysis; primary author, USEPA's The Clean Water and Drinking Water Infrastructure Gap Analysis; 30 years EPA – development of financing programs; BA, MA, MPA.

Mr. Doug Stewart, P.E. - Principal Consultant, GHD; former Asset Management Program Director, Orange County Sanitation District; 30 years engineering experience, 10 years utility management; BS, MSCE



Name (First, M.I., Last)





The Fundamentals of Asset Management

REGISTRATION FORM

Names Used On Badge	e	
Organization		
Mailing Address		
City, State, Zip Code		
Daytime Phone	Fax	
E-mail Address		
Registration: Before November 1, 2011 \$195/person. Register 3 or more than \$150/person After November 1, 2011 \$225/person. Register 3 or more than \$180/person Cancellations after November 1 are subject to a \$50 cancellation fee. Please visit www.mrwa.net for Online Registration		
arrangements. Double	ions: Attendees that need lodging are required to make their ownerree Hotel, 42100 Crescent Blvd, Novi, MI 48375. A rate of SIRWA when reserving room. To receive this rate please call WA rate.	\$129 plus

Make your check payable to: MRWA

Please mail the registration form and payment to:

MRWA
PO Box 960
Harrison, MI

For more information, contact: Tim Neumann, (989) 539-4111